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PTO/SB/05 (2/98)

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## UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR § 1.53(b))

Attorney Docket No.

1744.0630002

First Inventor or Application Identifier

David F. Sorrells

Title

Wireless Local Area Network (WLAN) Technology and Applications Including Techniques of Universal Frequency Translation

Express Mail Label No.

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO:

Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

1. ☒ \* Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original, and a duplicate for fee processing)

2. ☒ Specification [Total Pages 243]

(preferred arrangement set forth below)

- Descriptive title of the Invention
- Cross References to Related Applications
- Statement Regarding Fed sponsored R & D
- Reference to Microfiche Appendix
- Background of the Invention
- Brief Summary of the Invention
- Brief Description of the Drawings (if filed)
- Detailed Description
- Claim(s)
- Abstract of the Disclosure

3. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 244]

4. ☐ Oath or Declaration [Total Pages \_\_\_\_\_]

a. ☐ Newly executed (original or copy)

b. ☐ Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional with Box 17 completed)  
[Note Box 5 below]

i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR §§ 1.63(d)(2) and 1.33(b).

5. ☐ Incorporation By Reference (useable if Box 4b is checked)  
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

6. ☐ Microfiche Computer Program (Appendix)

7. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)

a. ☐ Computer Readable Copy

b. ☐ Paper Copy (identical to computer copy)

c. ☐ Statement verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

8. ☐ Assignment Papers (cover sheet & document(s))

9. ☐ 37 CFR 3.73(b) Statement ☐ Power of Attorney  
(when there is an assignee)

10. ☐ English Translation Document (if applicable)

11. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations

12. ☐ Preliminary Amendment

13. ☒ Two Return Receipt Postcards (MPEP 503)  
(Should be specifically itemized)

14. ☐ \*Small Entity Statement(s) ☐ Statement filed in prior application, Status still proper and desired  
(PTO/SB/09-12)

15. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)

16. ☒ Other: 37 C.F.R. § 1.136(a)(3) Authorization

☐ Other:

\*NOTE FOR ITEMS 1 & 14: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27). EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).

17. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment:

☐ Continuation ☐ Divisional ☐ Continuation-in-Part (CIP) of prior application No: \_\_\_\_/\_\_\_\_

Prior application information: Examiner \_\_\_\_\_ Group/Art Unit: \_\_\_\_\_

## 18. CORRESPONDENCE ADDRESS

☐ Customer Number or Bar Code Label

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or ☒ Correspondence address below

NAME	STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.				
	Attorneys at Law				
ADDRESS	Suite 600, 1100 New York Avenue, N.W.				
CITY	Washington	STATE	DC	ZIP CODE	20005-3934
COUNTRY	USA	TELEPHONE	(202) 371-2600	FAX	(202) 371-2540

NAME (Print/Type)	Michael D. Lee	Registration No. (Attorney/Agent)	35,239
SIGNATURE		Date	8/4/00

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Sorrells *et al.*

Appl. No. 1744.0630002

Filed: August 4, 2000

For: **Wireless Local Area Network  
(WLAN) Technology and  
Applications Including  
Techniques of Universal  
Frequency Translation**

Art Unit: To be assigned

Examiner: To be assigned

Atty. Docket: 1744.0630002



**Authorization To Treat A Reply As Incorporating An Extension Of Time  
Under 37 C.F.R. § 1.136(a)(3)**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

The U.S. Patent and Trademark Office is hereby authorized to treat any concurrent or future reply that requires a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. The U.S. Patent and Trademark Office is hereby authorized to charge all required extension of time fees to our Deposit Account No. 19-0036, if such fees are not otherwise provided for in such reply. A duplicate copy of this authorization is enclosed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

*for Michael Q. Lee* 36-17  
Attorney for Applicants  
Registration No. 35,239

Date: \_\_\_\_\_

1100 New York Avenue, N.W.  
Suite 600  
Washington, D.C. 20005-3934  
(202) 371-2600

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<b>FEE TRANSMITTAL</b> <b>for FY 2000</b> <i>Patent fees are subject to annual revision.</i> <i>Small Entity payments must be supported by a small entity statement, otherwise large entity fees must be paid. See Forms PTO/SB/09-12.</i> <i>See 37 C.F.R. §§ 1.27 and 1.28.</i>		<b>Complete if Known</b>	
		<b>Application Number</b>	<b>To be assigned</b>
		<b>Filing Date</b>	<b>August 4, 2000</b>
		<b>First Named Inventor</b>	<b>David F. Sorrells</b>
		<b>Examiner Name</b>	<b>To be assigned</b>
		<b>Group / Art Unit</b>	<b>To be assigned</b>
		<b>Attorney Docket Number</b>	<b>1744.0630002</b>
<b>TOTAL AMOUNT OF PAYMENT</b>		<b>(\$)</b> 1,428.00	

METHOD OF PAYMENT (check one)	FEE CALCULATION (continued)																																																																																																																																																																						
<p>1. <input type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any overpayment to:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Deposit Account Number</td> <td style="border: 1px solid black; padding: 2px;">19-0036</td> </tr> <tr> <td>Deposit Account Name</td> <td style="border: 1px solid black; padding: 2px;">Sterne, Kessler, Goldstein &amp; Fox P.L.L.C.</td> </tr> </table> <p><input type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR §§ 1.16 and 1.17</p> <p>2. <input checked="" type="checkbox"/> Payment Enclosed: <input checked="" type="checkbox"/> Check <input type="checkbox"/> Money Order <input checked="" type="checkbox"/> Other*          *Charge any deficiencies or credit any overpayments in the fees or fee calculations of Parts 1, 2 and 3 below to Deposit Account No. 19-0036.</p>	Deposit Account Number	19-0036	Deposit Account Name	Sterne, Kessler, Goldstein & Fox P.L.L.C.	<p>3. ADDITIONAL FEES</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Fee Code</th> <th>Entity Fee (\$)</th> <th>Small Fee Code</th> <th>Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>105</td><td>130</td><td>205</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>127</td><td>50</td><td>227</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>139</td><td>130</td><td>139</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>147</td><td>2,520</td><td>147</td><td>2,520</td><td>For filing a request for reexamination</td><td></td></tr> <tr><td>112</td><td>920*</td><td>112</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>113</td><td>1,840*</td><td>113</td><td>1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>115</td><td>110</td><td>215</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>116</td><td>380</td><td>216</td><td>190</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>117</td><td>870</td><td>217</td><td>435</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>118</td><td>1,360</td><td>218</td><td>680</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>128</td><td>1,850</td><td>228</td><td>925</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>119</td><td>300</td><td>219</td><td>150</td><td>Notice of Appeal</td><td></td></tr> <tr><td>120</td><td>300</td><td>220</td><td>150</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>121</td><td>260</td><td>221</td><td>130</td><td>Request for oral hearing</td><td></td></tr> <tr><td>138</td><td>1,510</td><td>138</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>140</td><td>110</td><td>240</td><td>55</td><td>Petition to revive - unavoidable</td><td></td></tr> <tr><td>141</td><td>1,210</td><td>241</td><td>605</td><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>142</td><td>1,210</td><td>242</td><td>605</td><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>143</td><td>430</td><td>243</td><td>215</td><td>Design issue fee</td><td></td></tr> <tr><td>144</td><td>580</td><td>244</td><td>290</td><td>Plant issue fee</td><td></td></tr> <tr><td>122</td><td>130</td><td>122</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>123</td><td>50</td><td>123</td><td>50</td><td>Petitions related to provisional applications</td><td></td></tr> <tr><td>126</td><td>240</td><td>126</td><td>240</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>581</td><td>40</td><td>581</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td></td></tr> <tr><td>146</td><td>690</td><td>246</td><td>345</td><td>Filing a submission after final rejection (37 CFR 1.129(a))</td><td></td></tr> <tr><td>149</td><td>690</td><td>249</td><td>345</td><td>For each additional invention to be examined (37 CFR 1.129(b))</td><td></td></tr> </tbody> </table> <p>Other fee (specify) :          Other fee (specify) :          *Reduced by Basic Filing Fee Paid</p>	Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid	105	130	205	65	Surcharge - late filing fee or oath		127	50	227	25	Surcharge - late provisional filing fee or cover sheet		139	130	139	130	Non-English specification		147	2,520	147	2,520	For filing a request for reexamination		112	920*	112	920*	Requesting publication of SIR prior to Examiner action		113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action		115	110	215	55	Extension for reply within first month		116	380	216	190	Extension for reply within second month		117	870	217	435	Extension for reply within third month		118	1,360	218	680	Extension for reply within fourth month		128	1,850	228	925	Extension for reply within fifth month		119	300	219	150	Notice of Appeal		120	300	220	150	Filing a brief in support of an appeal		121	260	221	130	Request for oral hearing		138	1,510	138	1,510	Petition to institute a public use proceeding		140	110	240	55	Petition to revive - unavoidable		141	1,210	241	605	Petition to revive - unintentional		142	1,210	242	605	Utility issue fee (or reissue)		143	430	243	215	Design issue fee		144	580	244	290	Plant issue fee		122	130	122	130	Petitions to the Commissioner		123	50	123	50	Petitions related to provisional applications		126	240	126	240	Submission of Information Disclosure Stmt		581	40	581	40	Recording each patent assignment per property (times number of properties)		146	690	246	345	Filing a submission after final rejection (37 CFR 1.129(a))		149	690	249	345	For each additional invention to be examined (37 CFR 1.129(b))	
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<b>SUBMITTED BY</b>		<b>Complete (if applicable)</b>	
Typed or Printed Name	Michael O. Lee	Reg. Number	35,239
Signature		Deposit Acct. User ID	
	Date 8/4/00		

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STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

ATTORNEYS AT LAW

1100 NEW YORK AVENUE, N.W., SUITE 600

WASHINGTON, D.C. 20005-3934

www.skgf.com

PHONE: (202) 371-2600 FACSIMILE: (202) 371-2540

ROBERT GREENE STERNE  
EDWARD J. KESSLER  
JORGE A. GOLDSTEIN  
SAMUEL L. FOX  
DAVID K.S. CORNWELL  
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JEFFREY S. WEAVER  
KRISTIN K. VIDOVICH  
KENDRICK P. PATTERSON  
DONALD J. FEATHERSTONE  
GRANT E. REED  
VINCENT L. CAPUANO  
JOHN A. HARROUN\*  
MATTHEW M. CATLETT\*  
NATHAN K. KELLEY\*  
ALBERT J. FASULO II\*  
W. BRIAN EDGE\*

KAREN R. MARKOWICZ\*\*  
SUZANNE E. ZISKA\*\*  
BRIAN J. DEL BUONO\*\*  
ANDREA J. KAMAGE\*\*  
NANCY J. LEITH\*\*  
TARJA H. NAUKKARINEN\*\*

\*BAR OTHER THAN D.C.  
\*\*REGISTERED PATENT AGENTS

August 4, 2000

WRITER'S DIRECT NUMBER:  
(202) 371-2674

INTERNET ADDRESS:  
MLEE@SKGF.COM

Commissioner for Patents  
Washington, D.C. 20231

*Box Patent Application*

Re: U.S. Non-Provisional Utility Patent Application  
Appl. No. To be assigned; Filed: August 4, 2000  
For: **Wireless Local Area Network (WLAN) Technology and Applications  
Including Techniques of Universal Frequency Translation**  
Inventors: Sorrells *et al.*  
Our Ref: 1744.0630002

Sir:

The following documents are forwarded herewith for appropriate action by the U.S.  
Patent and Trademark Office:

1. PTO Fee Transmittal (Form PTO/SB/17); (*in duplicate*);
2. PTO Utility Patent Application Transmittal (Form PTO/SB/05);
3. U.S. Utility Patent Application entitled:

**Wireless Local Area Network (WLAN) Technology and Applications  
Including Techniques of Universal Frequency Translation**

Commissioner for Patents

August 4, 2000

Page 2

and naming as inventors:

David F. Sorrells  
Michael J. Bultman  
Robert W. Cook  
Richard C. Looke  
Charley D. Moses, Jr.  
Gregory S. Rawlins  
Michael W. Rawlins

the application consisting of:

- a. A specification containing:
- i. 226 pages of description prior to the claims;
  - ii. 16 pages of claims (61 claims);
  - iii. a one (1) page abstract;
- b. 244 sheets of drawings: (Figures 1A-D, 2-5, 6A-I, 7-14, 15A-F, 16-19, 20A-G, 21, 22A-F, 23A-F, 24A-J, 25-45, 46A, 46B, 47, 48, 49A, 49B, 50, 51, 52A, 52B, 53-55, 56A, 56B, 57-60, 61A, 61B, 62-70, 71A-D, 72A-J, 73A, 73B, 74, 75A-C, 76A, 76B, 77, 78, 79A-D, 80, 81A-C, 82-88, 89A-E, 90-100, 101A, 101B, 102-127, 128A-D, 129A-S, 130, 131, 132A-E, 133, 134, 135A-G, 136-139, 140A-L, 141A, 141B, 142, 143A, 143B, 144A, 144B, 145A-D, 146-212);
4. Authorization to Treat a Reply As Incorporating An Extension of Time Under 37 C.F.R. § 1.136(a)(3); (*in duplicate*);
5. Two (2) return postcards; and
6. Our check number 18309 for \$1,428.00 to cover \$690.00 filing fee and \$738.00 excess claims fee.

It is respectfully requested that, of the two attached postcards, one be stamped with the filing date of these documents and returned to our courier, and the other, prepaid postcard, be stamped with the filing date and unofficial application number and returned as soon as possible.

1. The first part of the paper is devoted to the study of the asymptotic behavior of the solutions of the system (1) as  $\epsilon \rightarrow 0$ . It is shown that the solutions of the system (1) converge to the solutions of the system (2) in the sense of the weak convergence in the space  $L^2(\Omega; \mathbb{R}^n)$ .